

Listing of Claims:

1. (Currently Amended) A helical screw rotor compressor comprising:

a rotor housing ~~(103, 104, 105)~~ that includes a first end wall ~~(103)~~ and a second end wall ~~(104)~~, wherein said walls ~~(103, 104)~~ are parallel with one another and connected by a barrel wall ~~(105)~~, wherein said barrel wall has internally the shape of two parallel and mutually intersecting cylinders, and wherein the rotor housing ~~(103, 104, 105)~~ further includes an inlet port ~~(108)~~ at a first end and an outlet port at a second end,

two rotors ~~(101, 102)~~ which co-act with each other and also with the rotor housing ~~(103, 104, 105)~~ and each of which includes a respective shaft ~~(21, 26)~~ mounted in end walls ~~(103, 104)~~ of the compressor housing, and a respective rotor body ~~(22, 23)~~ surrounding a respective shaft ~~(21, 26)~~, said bodies having parallel end surfaces ~~(4, 3)~~ between the end walls ~~(103, 104)~~ of the rotor housing,

wherein the rotor body ~~(22, 23)~~ includes mutually separated helical lobes ~~(106, 107)~~ that have a crown ~~(5, 15 respectively)~~, a first or leading flank surface ~~(1)~~ on a first side of the crown ~~(5)~~ and a second or trailing flank surface ~~(2)~~ on a second side of the crown ~~(5)~~, ~~characterised in that~~ and

wherein the second or trailing flanks ~~(2)~~ of said lobes ~~(106, 107)~~ are ~~bevelled~~ beveled or chamfered adjacent the second end surface ~~(3)~~ at said outlet opening.

2. (Currently Amended) A The helical screw rotor compressor according to Claim 1, ~~characterised in that~~ wherein the rotor body ~~(22, 23)~~ ~~consists of~~ comprises a polymeric material.

3. (Currently Amended) A The helical screw rotor compressor according to Claim 2, ~~characterised in that~~ wherein the rotor body ~~(22, 23)~~ ~~consists of~~ comprises a thermoplastic resin.

4. (Currently Amended) A The helical screw rotor compressor according to Claim 2, ~~characterised in that~~ wherein the rotor body ~~(22, 23)~~ ~~consists of~~ comprises a thermosetting resin.

5. (Currently Amended) A The helical screw rotor compressor according to Claim 1, ~~characterised in that~~ wherein the bevel or chamfer functions to reduce the width of the lobe ~~(106, 107)~~ at said end surface by at most 3 mm.

6. (Currently Amended) A The helical screw rotor compressor according to Claim 1, ~~characterised in that~~ wherein the bevel or chamfer functions to reduce the width of the lobe ~~(106, 107)~~ at said end surface by 0.5 mm at the lowest.

7. (Currently Amended) A The helical screw rotor compressor according to Claim 1, ~~characterised in that~~ wherein the bevel or chamfer is perpendicular to the end surface ~~(3, 4)~~.

8. (Currently Amended) A The helical screw rotor compressor according to Claim 1, ~~characterised in that~~ wherein the rotor shaft ~~(21, 26)~~ is made of steel.